

1
2
3
4
5
6
7
8
9
10
11 BEFORE THE STATE OF WASHINGTON
12 ENERGY FACILITY SITE EVALUATION COUNCIL
13

14
15 In the Matter of Application No. 99-1:
16

17
18 SUMAS ENERGY 2 GENERATION
19 FACILITY
20
21

EXHIBIT ____ (CM-RT)

22
23
24 **APPLICANT'S PRE-FILED REBUTTAL TESTIMONY**
25

26 **WITNESS: CHARLES MARTIN**
27
28
29

30 **Q. Please re-introduce yourself to the Council.**
31

32 A. My name is Chuck Martin, and I am the president of SE2.
33
34
35

36 **Q. What issues will your rebuttal testimony address?**
37

38 A. My testimony will address five issues:
39

- 40 1. Air emissions and offset issues raised in the testimony of Robert Caton.
41
42 2. Greenhouse gas mitigation issues raised in the testimony of Richard Gammon,
43
44 Nancy Hirsh, K.C. Golden, and Peter West;
45
46 3. Natural gas supply issues raised in the testimony of Jim Lazar;
47

1 4. "Build Window" and site restoration issues raised in the testimony of Jim Lazar;
2
3 and

4
5 5. Power marketing issues raised in the testimony of Ronald Eachus and Jim Lazar.
6
7

8
9 **Air Emissions & Offsets**

10
11 **Q. In your direct testimony, you criticized the Province of British Columbia for**
12 **opposing the SE2 facility on air quality grounds while continuing to operate**
13 **Burrard Thermal, a dirtier facility in the same airshed. Robert Caton testified**
14 **that your criticism was unfair because Burrard "simply is not used that much"**
15 **and "isn't allowed to operate . . . when air quality in the region is particularly**
16 **poor." How do you respond to Dr. Caton?**
17

18
19
20
21
22
23 **A.** Dr. Caton is factually incorrect.

24
25 First, Burrard has been steadily increasing operations in recent years. I discussed
26 Burrard's increasing operations in my direct testimony, and Dr. Caton didn't dispute
27 the data; he just seems to have ignored the facts. According to an April 2001 report
28 issued by the B.C. Ministry of Finance, Burrard produced 1,447 GWh of electricity in
29 1999, 3,078 GWh in 2000 and is expected to produce 5,000 GWh in 2001. If SE2
30 were running all of the time at 100% capacity and 100% load, it could produce about
31 5,800 GWh, so I think it is a pretty fair comparison. If the Province were serious
32 about air quality concerns, they wouldn't be increasing output at Burrard. According
33 to permit conditions for the Burrard plant, it emits NOx at a rate of 220 pounds per
34 GWh and PM at a rate of 63 pounds per GWh (front half), while SE2 emits NOx at 50
35 pounds per GWh and PM at 36 pounds per GWh (front half). Stated another way,
36 Burrard emits NOx at a rate approximately 4.4 times higher per unit of electricity
37
38
39
40
41
42
43
44
45
46
47

1 generated than SE2, and Burrard emits PM at a rate approximately 1.8 times higher
2 per unit of electricity generated than SE2. Stated in tons then, at the expected
3 generation level for Burrard in the year 2000, it will emit 550 tons of NOx and 158
4 tons of PM (front half), while SE2 at its *potential* to emit (100% of capacity 100% of
5 the time) would emit 145 tons of NOx and 104 tons of PM (front half). In short, SE2
6 would generate *more* power with substantially *less* emissions, *and*, at the same time,
7 consume less natural gas. The Province should be shutting down Burrard and buying
8 power from SE2 if they want to improve air quality in the airshed. I suppose, though,
9 that since B.C. Hydro is making billions of dollars selling power in the U.S. and
10 customers in B.C. are receiving rebates instead of price hikes, it's not surprising that
11 the Province doesn't want to shut down Burrard just to improve air quality. Why
12 should they, when they can oppose SE2 instead?

13
14
15
16
17
18
19
20
21
22
23
24
25
26
27 Second, Burrard does not always shut down on bad air days. In mid-August when the
28 GVRD issued an air quality advisory, we checked to see if Burrard shut down and it
29 did not. I provided this information in my direct testimony. Dr. Caton didn't dispute
30 it; again, he just ignored the facts.

31
32
33
34
35
36
37 **Q. Dr. Caton also testified that you disregarded the substantial investments made to**
38 **reduce emissions from Burrard in 1993. Is that true?**

39
40
41 **A.** No, I didn't ignore the investments made to retrofit Burrard. The emissions have been
42 considerably lower after retrofits, but even with the retrofit, Burrard's emissions far
43 exceed SE2 on a pounds of emissions per unit of electricity generated basis (as
44 described above). In these proceedings, the Province consistently maintains that this
45
46
47

1 airshed is the worst possible location for a power plant, yet the Province continues to
2 operate and, in fact, is increasing generation at a facility in the same airshed that emits
3 far more pollution than SE2. It's hypocritical, and it shows that the Province's
4 position is driven by economics – net revenues from Burrard's operations that the B.C.
5 Ministry of Finance estimates at as much as a billion dollars. By its actions, the
6 Province is saying that B.C. economic growth is needed, but Whatcom County
7 economic growth is unacceptable, *even* if it is cleaner.
8
9
10
11
12
13
14
15
16

17 **Q. Let's talk about SE2's offset proposal. Dr. Caton testified that he believes it is**
18 **unlikely that SE2 would ever be able to implement projects that would offset its**
19 **emissions. How do you respond?**
20
21

22 **A.** I disagree. With cooperation and creativity, offsets should be achievable. Offset
23 programs continue to be a viable method for allowing new emissions sources in
24 urbanized non-attainment areas in the U.S. where offsets have been in use for some
25 time. Surely in Whatcom County and the B.C. Lower Mainland, where offset
26 programs do not yet exist and have not yet been utilized, it should be possible to find
27 many ways to reduce and/or eliminate existing sources of emissions. In fact, in the
28 spring and summer of 2000, we looked at two specific projects that were very
29 promising: First, was a project to cease the open burning of river debris in the Fraser
30 Valley. I believe this debris burning operation was the largest single emitter of NOx
31 in the Valley. Second, we were working with the Greater Vancouver Regional
32 District on establishing a fund to facilitate conversion of older boiler combustion
33 units to newer, cleaner models. I believe the estimates were that this effort could
34 reduce NOx emissions by about 500 tons per year at a cost of about Canadian \$3
35
36
37
38
39
40
41
42
43
44
45
46
47

1 million. These are two examples of projects that appeared quite viable until
2
3 cooperation ceased.
4

5
6 **Q. Dr. Caton also testified that opportunities for offsets in the airshed "have to be**
7 **carefully managed to compensate for unavoidable increases in emissions that**
8 **accompany regional growth." How do you respond?**
9

10
11
12 **A.** I don't understand what Dr. Caton means by "unavoidable growth." Economic growth
13 is permitted and encouraged by government policies. Emissions north of the border
14 are not unavoidable. The Province doesn't have to increase electrical output at
15 Burrard. Abbotsford doesn't have to expand its airport, attract new businesses or
16 permit new commercial and industrial facilities. Again, Dr. Caton seems to be saying
17 is that economic growth is essential and unavoidable north of the border, but
18 economic growth (even cleaner growth) is unnecessary south of the border.
19
20
21
22
23
24
25
26

27
28 **Q. Dr. Caton also criticized SE2's proposal to provide \$1.5 million in funding for**
29 **air quality improvements in the airshed if offset projects cannot be implemented**
30 **privately. Dr. Canton testified that, "obviously there would be no commitment**
31 **to spend that money in a way that would offset the impacts of those people who**
32 **are going to be breathing SE2's pollution." Do you agree?**
33
34
35
36
37

38 **A.** No, this concern doesn't make any sense to me. We've proposed that the funds be
39 administered jointly by the Washington Department of Ecology and the B.C. Ministry
40 of Water, Land and Air Protection for use to improve air quality in the airshed. The
41 B.C. Ministry claims to be concerned about the air quality affected by the SE2
42
43
44
45
46
47

1 facility. If the funds were available for addressing that air quality, why wouldn't they
2 use them for that purpose?
3
4

5
6 **Q. Dr. Caton also criticizes \$1.5 million as a "very insubstantial" amount. How do**
7 **you respond?**
8

9
10 **A.** I disagree. No other emitter in the airshed provides any funding to improve air
11 quality. In fact, I am not aware of any offset commitment (or offer) in the region that
12 approaches the one proposed by SE2. As I explained in my direct testimony, if
13 merely all of the emitters in the airshed located on the Canadian side of the border
14 made a similar commitment, it would generate a fund of more than \$275 million
15 (U.S.) to spend on air quality improvements.
16
17
18
19
20
21
22
23
24

Greenhouse Gas Mitigation

25
26 **Q. In their prefiled testimony, Richard Gammon and Peter West have talked about**
27 **a growing scientific consensus concerning global warming. Does their testimony**
28 **encourage you to change SE2's proposal for greenhouse gas mitigation?**
29
30
31

32 **A.** No. Both Dr. Gammon and Mr. West presented very similar testimony during the
33 first round of hearings. Unlike some others within our industry, SE2 has never tried
34 to argue about whether or not global warming is occurring, or whether or not human
35 activity contributes to global warming. There are undoubtedly scientific uncertainties
36 and debates in this area, but SE2 developed a greenhouse gas mitigation plan very
37 early in this process because we wanted to take a progressive approach to address
38 these issues. I remind the Council that we made that offer at a time when no power
39 plant developer in Washington had ever been required to do any greenhouse gas
40
41
42
43
44
45
46
47

1 mitigation, and no developer had ever made a comparable proposal to EFSEC. Last
2
3 February, the Council indicated that it felt an even more substantial commitment was
4
5 appropriate, so we stepped up and offered to essentially comply with the Oregon
6
7 monetary path as it existed at the time we filed the Second Revised Application.
8
9

10
11 **Q. Let me ask a couple questions about SE2's proposal. In her testimony, Ms.**
12
13 **Hirsh claims that SE2 is now backing off its original commitment to comply with**
14
15 **the Oregon standard by offering to only pay \$0.57 per ton under the Oregon**
16
17 **formula. How do you respond to her allegation?**

18
19 **A.** I don't think it's fair to suggest that we've gone back on our word or somehow broken
20
21 a promise. SE2 made the proposal to basically comply with the Oregon monetary
22
23 path when it filed its Application on June 29, 2001. This was a multi-million dollar
24
25 commitment, unprecedented by any applicant to EFSEC. At the time we made this
26
27 proposal, the price per ton under the Oregon monetary path was \$0.57. Later, before
28
29 we filed our direct testimony, we learned that Oregon regulators were considering
30
31 raising the price to \$0.85 per ton. In order to make sure there was no confusion about
32
33 our proposal, I stated very clearly in my direct testimony that our proposal was to
34
35 essentially comply with the monetary path as it existed at the time we filed our
36
37 Second Revised Application. Ms. Hirsh and others can argue that we should be
38
39 required to pay more, but our proposal has always been \$0.57 per ton under the
40
41 monetary path formula, and we have never gone back on our word regarding that
42
43 proposal.
44
45
46
47

1 **Q. Also concerning the monetary path proposal, Peter West testified that SE2**
2
3 **should be required to pay a 5% premium to cover administrative costs because**
4
5 **that is part of the Oregon program. Is that part of the SE2 proposal?**

6
7 A. No. SE2 proposed and committed to meet the Oregon monetary path, as it existed at
8
9 the time, as a method to calculate a dollar amount of greenhouse gas mitigation that
10
11 was appropriate and that the project could hope to afford. SE2 is not submitting to
12
13 the laws of the state of Oregon. In fact, SE2 is hopeful that the greenhouse gas
14
15 mitigation efforts of those in Washington State and British Columbia will flourish in
16
17 coming years and that the Council would see fit, when the time comes, to fund worthy
18
19 programs in close geographic proximity to the site. If it turns out some or all of the
20
21 mitigation funds do go to the Oregon Climate Trust, we are certain they will use the
22
23 funds to accomplish as much mitigation as possible, with as little loss to
24
25 administrative costs as possible.
26
27

28
29 **Q. Dr. Gammon, Ms. Hirsh and Mr. West criticize SE2's proposal, claim that it**
30
31 **only amounts to a partial offset of greenhouse gas emissions. Do you agree?**

32
33 A. Well, I think that depends upon what you mean by "offset."
34
35

36
37 You can look at emissions and offsets very simplistically. The SE2 facility will emit
38
39 a certain amount of greenhouse gases. Is SE2 proposing to fund specific projects that
40
41 will result in a reduction of existing greenhouse gas emissions (or sequestration of
42
43 existing greenhouse gases) that will be equal to the amount of greenhouse gases
44
45 expected to be emitted from the facility? No. We are only proposing a partial offset
46
47

1 in that simple sense. As I explained in my direct testimony, the Oregon program was
2 never designed to require a "full offset" in this simple sense.
3
4

5
6 In the complicated competitive power market, however, I believe it is appropriate to
7 look at offsets in a more sophisticated way. If someone buys power from SE2 instead
8 of buying it from a greater emitting facility, then having SE2 power in the market
9 place will allow a net reduction in greenhouse gases. Add to that the multi-million
10 dollar commitment we're making to fund additional "offset" projects, and SE2 may
11 well be more than fully offsetting the facility's emissions, in the sense of reducing the
12 greenhouse gases that would otherwise be emitted.
13
14
15
16
17
18
19
20

21
22 **Q. I want to explore that last point more closely because the other witnesses don't**
23 **seem to believe it. Dr. Gammon says "I would definitely favor SE2 in a swap to**
24 **shut down a large, coal-fired facility in the regional power grid. However, I see**
25 **no evidence that SE2 coming on line would lead to a net decrease in CO2**
26 **emissions from our state." Ms. Hirsh says no data support your hypothesis. Mr.**
27 **West testified at length about why he doesn't believe more coal power plants will**
28 **be built in the region. How do you respond?**
29
30
31
32
33
34
35

36 **A.** Let me try to explain my point.
37
38
39

40 Power generation and demand must be equal. Power generators can only generate as
41 much electric power as there is demand. They can't store the extra power in a
42 warehouse like other durable products. We all know that electricity demand varies
43 with season and time of day. When demand peaks in the region, all of the generating
44
45
46
47

1 capacity operates full out and we import power from other regions. During periods of
2 average or low demand, not all of our generating facilities operate at full capacity.

3
4 Over time, as the population grows and as our demand for high energy products like
5 computers grow, electricity demand grows, and more electrical generating facilities
6 are needed to meet demand. When a new power facility is built, it does not increase
7 demand for electricity. Instead, it becomes part of the pool of available resources to
8 meet that demand. It either operates or it doesn't depending upon how well it
9 competes with other resources in the pool. If it competes successfully – and operates
10 – it is operating instead of another resource that would otherwise be producing power.

11
12 There is no question that with the pool of electrical generating resources available in
13 the region, an increase in the use of electricity generally results in an increase in
14 greenhouse gas emissions. Whether the addition of a new natural gas-fired generating
15 facility will increase greenhouse gas emissions, however, depends upon how the
16 electricity would be produced if the facility were not built. If the electricity would
17 otherwise be produced through hydropower, nuclear or wind power, then the new
18 facility would increase greenhouse gas emissions. If it would otherwise be produced
19 through the use of fossil fuels, you need to compare the greenhouse gas emissions per
20 kilowatt hour of different facilities. In our region, virtually all of the fossil fuel using
21 facilities produce greater emissions per kilowatt hour than SE2. The coal facilities at
22 Centralia and Coalstrip do, oil fired generators do, all the single cycle natural gas
23 peaking plants do, all the older combined cycle natural gas plants, such as Burrard do.
24 The other witnesses seem to focus on coal, but we don't need to focus on coal;
25 virtually all of the other relevant facilities in the region are greater emitters of

1 greenhouse gases per kilowatt hour generated than SE2 would be. Only the newly
2
3 proposed high efficiency combined cycle plants like SE2 come close. As a practical
4
5 matter, SE2 is not going to displace any of the hydro, nuclear or wind that is already
6
7 committed to BPA and other utilities in the region. It is going to displace the less
8
9 efficient facilities – the natural gas peaking plants, the diesel generators, the less
10
11 efficient combined cycle gas plants, the old coal facilities. If it doesn't succeed in
12
13 displacing those sources, it wouldn't operate. That means that, if SE2 operates,
14
15 existing electricity demand will be met with fewer greenhouse gas emissions than
16
17 would otherwise occur.
18

19
20
21 Some of the witnesses say they disagree with this theory but they don't provide any
22
23 explanation for their disagreement. It is worth pointing out that this same basic idea
24
25 underlies some of the "offset projects" that the Oregon Climate Trust funds. For
26
27 example, the Climate Trust is funding wind generation projects as an offset. Wind
28
29 generators do not themselves eliminate greenhouse gases – they aren't like carbon
30
31 sequestration programs --but wind generation facilities produce electricity without
32
33 generating any greenhouse gases. If people use wind power instead of hydropower,
34
35 there is no offset. The reason everyone considers wind projects to be an offset is that
36
37 they are designed to make wind power competitive so that people will use wind
38
39 power instead of coal, oil or natural gas power. Sure, a wind generation facility is a
40
41 more effective offset project than a high efficiency combined cycle gas plant, but both
42
43 result in a reduction in the greenhouse gases that would otherwise be produced
44
45 because they operate instead of greater emitting facilities to meet existing electricity
46
47 demand.

1 **Q. Ms. Hirsh testified, however, "Fossil fuel and coal resources in the Northwest**
2 **have not been curtailed in recent years due to more efficient plants coming on**
3 **line, both because older plants are depreciated and therefore cheaper and**
4 **because of load growth." How do you respond to her?**
5
6
7

8
9 **A.** I don't know what Ms. Hirsh means when she says existing coal and fossil fuel
10 facilities have not be "curtailed" in recent years as new more efficient plants come on
11 line. Existing facilities may not have been permanently shut down, but existing coal
12 and fossil fuel facilities in the region do not operate at full capacity 365 days a year.
13
14 If the newer more efficient plants have been operating, then they are producing
15 electricity that would otherwise have been produced by other means – presumably the
16 less efficient facilities. If more highly efficient facilities were built, they would
17 compete in the market and displace other less efficient facilities.
18
19
20
21
22
23
24

25
26
27 Maybe a hypothetical example will illustrate my point. Imagine that we build the
28 most efficient (least greenhouse gas emitting) fossil fuel facility in the region. It will
29 either compete successfully or it won't. If people decide to buy power from it, that
30 means that they won't be buying power from another less efficient facility and a
31 reduction in greenhouse gas emissions occurs. If people don't decide to buy power
32 from the new facility, then it will never operate and there would be no greenhouse gas
33 emissions from the facility to worry about. It's simple, building a new plant only
34 causes an increase the greenhouse gas emissions associated with our electrical use if it
35 displaces a facility that provides electricity with even lower greenhouse gas
36 emissions. Neither Ms. Hirsh nor any of the other witnesses contend that that would
37 happen.
38
39
40
41
42
43
44
45
46
47

1
2
3 **Q. Okay, leaving aside the question of whether a new facility like SE2 increases or**
4 **decreases greenhouse gas emissions, Mr. Golden testified about the importance**
5 **of internalizing the costs of greenhouse gas emissions in the price of power and**
6 **the City of Seattle's attempt to do that. How do you respond to Mr. Golden?**
7
8
9

10
11 **A.** From an economic standpoint, the concept of internalizing costs only makes sense if
12 everyone internalizes a particular type of cost. I don't necessarily oppose a universally
13 applied "carbon tax" because that would treat all electrical generators equally. Under
14 such a system, SE2 would fair very well, getting an additional economic advantage
15 over all of the other facilities that produce more greenhouse gas emissions per
16 kilowatt hour. The system doesn't work, however, if only one facility has to
17 internalize those costs. Then just that facility is penalized. The system becomes
18 counterproductive if the only facility that is required to internalize costs is one of the
19 best kinds of facilities from a greenhouse gas standpoint.
20
21
22
23
24
25
26
27
28
29
30

31 **Q. You say that internalizing costs doesn't make sense for only one facility, but**
32 **other witnesses seem confident that EFSEC will require all future projects to do**
33 **at least as much to offset greenhouse gas emissions as it requires from SE2. How**
34 **do you respond to that?**
35
36
37

38
39 **A.** Well, I hope they are right that EFSEC would hold other facilities to the same
40 standard. That doesn't solve the problem, though. It would just mean that EFSEC
41 would be penalizing all of the new facilities, which as a class are capable of
42 producing electricity at a much lower greenhouse gas emission rate than existing
43 facilities. The incentive is backward. A universal carbon tax would penalize the old
44
45
46
47

1 high-emitting facilities making them pay much more, and discouraging their use.

2
3 Making only new facilities pay creates a perverse system that encourages use of the
4
5 worst facilities from the standpoint of greenhouse gas emissions.
6
7

8
9 **Q. Okay, let's talk a little bit about the price per ton of offsets. SE2 has proposed to**
10
11 **pay \$0.57 per ton. If Oregon has now decided to charge \$0.85 per ton, why**
12
13 **shouldn't SE2 be required to pay that price?**
14

15 **A.** As noted above, SE2 proposed and committed to meet the Oregon monetary path as a
16
17 method to calculate a dollar amount of greenhouse gas mitigation that was appropriate
18
19 and that the project could hope to afford. At the time of the proposal, the price was
20
21 \$0.57 per ton. I believe that the proposed level of greenhouse gas mitigation is
22
23 unprecedented in Washington State and the Province of British Columbia and that
24
25 substantial and meaningful mitigation can and will be accomplished with the
26
27 proposed funds. When SE2's proposed greenhouse gas mitigation is combined with
28
29 the \$1.5 million proposed for other air emissions offsets, the outstanding level of
30
31 emissions control equipment to be employed by SE2, and the other mitigation
32
33 measures committed to by SE2, the appropriate threshold of environmental
34
35 responsibility has been met and far surpassed. The argument of opponents simply
36
37 seems to be that more is better. At some point, the next "straw" will break the
38
39 camel's back, if that point has not already been exceeded.
40
41

42
43 **Q. Ms. Hirsh, Mr. Golden and Mr. West also contend that the "actual" price of**
44
45 **offsets range from \$1.88 to \$5 per ton. How do you respond to that testimony?**
46
47

1 A. I think focusing on the actual cost of purchasing offsets misses the point. From a
2
3 policy standpoint, the more electricity generated by this type of facility and the less
4
5 generated by portable generators, single-cycle peaking plants, less efficient combined
6
7 cycle plants, and facilities that use coal or oil, the better. Imposing "offset"
8
9 requirements that will kill the SE2 project wouldn't do anyone any good. If we were
10
11 in a statutory or regulatory forum where the law-maker or decision-maker had the
12
13 ability to require all electrical generation in the country or at least the region to "fully
14
15 offset" its greenhouse gas emissions, then these costs would be internalized across the
16
17 board and you'd have a system that creates a strong incentive to minimize greenhouse
18
19 gas emissions. We'd all pay more for electricity, but it would put coal plants and low
20
21 efficiency facilities out of business. By just requiring SE2 to pay this kind of charge,
22
23 however, all you would succeed in doing is killing this project. Other facilities will
24
25 be built that are regulated by other authorities or in other jurisdictions that do not
26
27 impose such requirements.
28
29
30

31 **Q. You said the requirement would kill the project. Why is that the case?**

32
33 A. Well, if you do the math, the cost of the so-called full offset that other witnesses are
34
35 talking about starts at about 130 million dollars and goes up to more than 350 million
36
37 dollars. Richard Keefe is going to testify on this subject from his perspective as
38
39 someone who has been involved in financing many energy projects, but I know that
40
41 SE2 will not be able to go forward with this project if a \$130-\$350 million
42
43 greenhouse gas requirement is attached. There is simply no way we could get
44
45 financing. Instead, we'd think about proposing another smaller facility in Washington
46
47

1 that wouldn't be subject to this Council's authority, or we'd think about building a
2 facility in another state.
3
4
5

6 **Q. Peter West testified that a \$118 million dollar offset requirement would only**
7 **translate to an additional cost of a few cents a kilowatt hour. Why can't you**
8 **afford that?**
9

10
11
12 **A.** Mr. West's calculations miss the point. If banks or other investors are deciding where
13 to invest their money and they have a choice between two similar projects with the
14 ability to generate the same basic income stream, but Project A requires a capital
15 investment that is \$118 million dollars greater than Project B, every investor will
16 choose to invest in Project B, and Project A will never be built.
17
18
19
20
21
22
23

24 **Q. Finally, before we leave the subject of greenhouse gases, let's talk about where**
25 **the money should go. Ms. Hirsh, Mr. Golden and Mr. West seem concerned**
26 **about funds being administered by unqualified groups. How do you respond?**
27

28
29 **A.** SE2 is just as interested as everyone else in making sure that any money SE2 provides
30 is put to good use. We originally proposed the Oregon Climate Trust because they
31 seemed to be one of the only organizations doing this sort of thing. In my direct
32 testimony, I mentioned some other organizations in Washington that are interested in
33 these issues. We leave it to the Council to decide where the funds should be directed.
34 We would, however, strongly encourage the Council to consider qualified and worthy
35 projects and/or organizations that are located in Washington State and British
36 Columbia.
37
38
39
40
41
42
43
44
45
46
47

Natural Gas Supply

Q. Jim Lazar submitted testimony concerning natural gas supply issues. In general, how do you respond to his testimony?

A. His testimony is largely a repeat of the testimony he submitted during the first round of hearings. All along, we have intended natural gas to be the primary source of fuel for the facility, so his testimony does not seem to be properly within the scope the Council has defined for these hearings. Moreover, he seems intent on involving this facility siting council in natural gas contracting issues that are already regulated by other authorities.

Q. In his testimony, Mr. Lazar claims that SE2's use of natural gas has "the potential to impair the reliability of service for other gas customers and to put pressure on gas prices for all residents and businesses relying on gas." Do you agree?

A. No. I do not agree. SE2 will contract for firm gas supply and gas delivery service based on its electricity sales commitments. This supply and service will come from available and/or new supply and delivery service as determined by oil and gas producers and pipeline companies that are in these industries. SE2 will not take away supply or service from someone who has existing arrangements. Regulatory and contractual obligations for reliability of service from pipeline companies and local distribution companies will not be affected by arrangements made by SE2. With respect to pressure on gas prices, a certain amount of new gas-fired generation will be built and operated in North America. Accordingly, gas supply and demand will go through cyclical periods of short and long supply, as has been the case in recent

1 history. Prices, increasing and decreasing, will be affected by these cycles along with
2 a myriad of other factors that every commodity trader only wishes she/he could
3 understand and predict. The increase in gas demand from these new generators will
4 not be directly affected by whether SE2 is, or is not, constructed and operated.
5
6
7
8
9

10 **Q. Mr. Lazar references OTED's May 2001 report entitled "Convergence:**
11 **Electricity and Natural Gas in Washington" and expresses concern about new**
12 **power plants placing pressure on the natural gas supply system. How do you**
13 **respond to his testimony?**
14
15
16
17

18 **A.** As noted above, decisions to expand delivery service capacity to natural gas
19 customers will be made by companies in the pipeline industry whose business it is to
20 deliver gas. I note that currently, there are at least six pipeline expansions of which I
21 am aware that are being considered or pursued in Washington State: 1) the ORCA
22 pipeline that would serve parts of northwest Washington and the Olympic Peninsula,
23 2) the Georgia Strait Crossing pipeline that would run west across Whatcom County
24 and then turn northwest to Vancouver Island to serve new power generation plants
25 there, 3) the Washington lateral being proposed by PGT which would serve portions
26 of central eastern and western Washington, 4) the Williams Sumas to Chehalis
27 expansion of its mainline system along the Interstate 5 corridor, 5) the Williams
28 Columbia Gorge expansion, and 6) the Williams South to North expansion that would
29 make more supply available to the Northwest out of the U. S. Rocky Mountains.
30 Pipeline operators typically respond to market demand by expanding existing or
31 building new pipelines when demand for delivery justifies it. Similar pipeline
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

1 capacity expansions are underway on the Westcoast Energy and B.C. Gas pipeline
2 systems in British Columbia.
3
4
5

6 **Q. Mr. Lazar testifies that natural gas price increases last year were the result of**
7 **natural gas being used for electrical generation. How do you respond to that**
8 **testimony?**
9

10 **A.** It is likely that high demand for natural gas, including for electrical generation,
11 contributed to price spikes experienced last year. Just as a combination of factors
12 have seen gas prices come steadily down over the first nine months of 2001 for an
13 average price for natural gas at the Sumas hub of \$1.81 per MMBtu in the month of
14 September 2001 (NGW 10/1/2001 pg. 15). The high demand conditions last winter
15 were likely exacerbated by the severe shortage of electricity and resulting high
16 electricity prices, and new pipeline connections from the B.C. natural gas supply
17 basin to new markets in the U.S. mid-west. Natural gas suppliers and the gas supply
18 industry will respond to increasing demand as they have in the past, by exploring new
19 areas, drilling new wells, and improving recovery and productivity from existing
20 production areas. This is an ongoing cycle of demand growth and supply response.
21 There will be lags in supply response, and there will be extraordinary circumstances
22 such as the recent regional drought and power shortage that we experienced over the
23 last year, but supply will be developed to meet demand. The Honourable Richard
24 Neufeld, British Columbia Minister of Energy and Mines, summed it up recently (July
25 27, 2001) when he stated: "British Columbia has great current and potential energy
26 supply in the complete range of energy types, and infrastructure to get energy to users
27 throughout North America." Gas reserves, production, and pipelines coming from
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

1 Alberta and the U.S. Rocky Mountains also serve Washington State and the
2 Northwest.
3

4
5
6 **Q. Mr. Lazar recommends that EFSEC require SE2 either to contract for a**
7 **sufficient supply of natural gas to meet its requirements, or to contract for a**
8 **portion of its needs plus a minimum of 20 days of gas storage capacity. How do**
9 **you respond to that recommendation?**
10

11
12
13
14 **A.** It seems odd and possibly beyond the authority of the Council to impose restrictions
15 or conditions on fuel supply contracts and required volumes of fuel storage. These
16 seem to be commercial considerations that would be driven by SE2's power sales
17 commitments and financing arrangements. For instance, if SE2 contracted the
18 capacity of its plant to a utility under a tolling-type arrangement, fuel would likely
19 only be purchased when the utility made a decision to dispatch the plant. Conversely,
20 if SE2 contracted its energy to a utility at firm prices, it would be prudent from a
21 business standpoint for SE2 to "lock-up" or otherwise hedge the cost of its fuel
22 appropriately to match its power sales price. Another example would be if SE2
23 entered into a contract to sell its power at a price indexed to the current price of
24 natural gas. In this case, SE2 would likely choose to purchase fuel in relation to the
25 pricing of the electricity sold. An advance determination on this matter by a regulator
26 makes no sense at all. At this early stage in the project, even the project developer is
27 not in a position to make such a decision.
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

45 **Q. Mr. Lazar also recommends that EFSEC require SE2 to contract for "sufficient**
46 **newly constructed firm capacity" in the Westcoast pipeline system to meet its**
47

1 **maximum daily needs for the facility. How do you respond to that**
2
3 **recommendation?**

4
5 A. Again, it seems odd and possibly beyond the authority of the Council to
6
7 impose conditions on the particular pipeline company with which SE2 must contract
8
9 for pipeline service and whether that service is to be provided from newly constructed
10
11 or existing capacity. Rather, these seem to be commercial considerations that would
12
13 be driven by SE2's fuel supply requirements and financing arrangements, *not* to
14
15 mention the fact that pipeline companies like Westcoast Energy are publicly owned
16
17 companies that make these decisions in their own best economic interest, subject to
18
19 the regulations and regulatory authorities under which they operate. At the
20
21 appropriate time, SE2 would contract for pipeline service to accommodate its fuel
22
23 requirements. An advance determination on this matter by a regulator makes no sense
24
25 at all. At this early stage in the project, even the project developer is not in a position
26
27 to make such a decision.

28
29
30
31 **Build Window & Site Restoration**

32
33 **Q. In his prefiled testimony, Mr. Lazar contends that having many outstanding**
34
35 **permits for energy facilities makes it difficult to ensure that there is a reliable**
36
37 **and adequate power supply. He contends that the uncertainty discourages**
38
39 **development of new facilities. Do you agree?**

40
41 A. No. This testimony does not make sense to me. Having projects permitted makes it
42
43 easier to build those facilities quickly when they are needed. In hindsight, it seems to
44
45 have been very wise for the Council to have permitted the Chehalis and Satsop
46
47 projects in the mid-1990's, even though no one intended to construct those facilities

1 at the time of permitting. This “permit banking” has allowed those projects to begin
2 construction this year. In contrast, we first began developing the SE2 project around
3 1997 and have been in the EFSEC permitting process for almost three years. Short
4 build windows present significant risks for private developers that try to plan ahead
5 and anticipate future market conditions.
6
7
8
9

10
11
12 **Q. Mr. Lazar also testified that long build windows make it difficult to plan natural**
13 **gas supply and pipeline capacity. Do you agree?**
14

15
16 **A.** No. As I explained above, pipeline companies and natural gas suppliers make
17 business decisions based upon existing and projected demand. Although they may
18 consider whether projects have obtained permits or not, their analysis of demand is
19 much more sophisticated than simply seeing what permits are outstanding.
20
21
22
23
24

25
26 **Q. Mr. Lazar also testified that he believes outstanding permits with long build**
27 **windows may discourage others from developing new generation. Do you agree?**
28

29
30 **A.** No. As a power project developer, I can assure you that we evaluate market
31 conditions and other generation sources (both existing and future) in a much more
32 sophisticated way. In the industry, we all gather information about proposed and
33 permitted projects like these and we make our own assessments about whether they
34 will be built and whether our projects will be able to compete with them if they are
35 built. The existence of outstanding permits is one piece of relevant information, but it
36 certainly isn't determinative. Mr. Lazar mentions the unbuilt Cowlitz (Weyerhaeuser
37 Longview) and Northwest Regional Power Facility projects that have been permitted
38
39
40
41
42
43
44
45
46
47

1 by EFSEC. Those outstanding permits are not discouraging us from developing
2 power projects in Washington State and I doubt if they are discouraging others.
3
4
5

6 **Q. Mr. Lazar recommends that EFSEC require SE2 to begin construction within 30**
7 **months of obtaining the Site Certification Agreement. How do you respond to**
8 **that recommendation?**
9

10 **A.** I disagree with it. A developer needs more flexibility than 30 months in order to
11 make the substantial financial and opportunity cost risk involved in obtaining a site
12 certificate worthwhile. From a business development standpoint, it would be nearly
13 impossible to expect to bring together all the ingredients necessary for this type of a
14 project including: preliminary development and engineering, permitting, final design,
15 financing, construction and commercial operation, in a shortened time-frame. SE2
16 has been underway with this proposal since preliminary development began in 1996
17 or 1997, with its first application made to this Council in January of 1999. If SE2
18 receives a site certificate in early 2002, there would still be other permits SE2 needs
19 to obtain, financing to be worked out, final design to be completed, and other
20 conditions of the Site Certification Agreement to be satisfied before construction
21 could begin.
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37

38 As a developer and owner, it is in our best economic interest, and we have every
39 intention of moving forward immediately to complete permitting, final design,
40 financing, and construction upon receiving a site certificate. However, many of these
41 aspects are beyond our direct ability to control. Two significant examples of this are
42 permitting of the International Power Line and project financing. The International
43
44
45
46
47

1 Power Line permit is obtained through a federal process in Canada overseen by the
2 Canadian National Energy Board. It is a process similar to the EFSEC permitting
3 process in Washington State, and the timetable for completing it is dynamic. One
4 thing is clear, this process will not resume until the EFSEC process is completed or
5 nearly completed in Washington. An optimistic estimate of the time required for the
6 process is 6 months. With respect to the vagaries of project financing, it is probably
7 adequate to say that successful financing will depend on a number of project specific
8 factors *and* many external factors, including: general economic conditions, the
9 regional power market, and the appetite of institutional investors and capital project
10 lenders for undertaking new projects. These external factors are dynamic and subject
11 to cycles. All factors; internal and external, must be ready and favorable
12 simultaneously in order to be able to move ahead with financing and construction.
13 Although it is possible to accomplish all of this work and to have all the “stars
14 aligned” in the 30 month window, it significantly reduces the prospect of having a
15 successful project. The approach in the existing Satsop and Chehalis SCAs, requiring
16 construction to begin within 10 years, seems more appropriate.
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34

35 **Q. In his prefiled testimony, Mr. Lazar addressed the site restoration requirements.**
36 **How do you respond to his testimony?**
37

38 **A.** Mr. Lazar appears to be generally satisfied with our proposal to maintain pollution
39 liability insurance and obtain a site closure bond. He says that EFSEC should
40 determine the amount of the bond prior to initiation of construction, which is what
41 we’ve proposed. EFSEC has recently gone through this process with the Chehalis
42 and Satsop projects, so we do not expect it to be very difficult.
43
44
45
46
47

Power Marketing

Q. Have you reviewed the testimony submitted by Ronald Eachus?

A. Yes

Q. What was your general reaction to that testimony?

A. Mr. Eachus's testimony provided a variety of recommendations about how the marketing of electricity should be regulated. That's not surprising since his background is in utility regulation and he spent many years serving as a commissioner on the Oregon Public Utility Commission. The Oregon PUC is the Oregon corollary of the Washington Utilities and Transportation Commission, and it has the statutory authority to regulate the marketing of electricity – the rates charged, conditions of service, etc... As a policy matter, I don't agree with many of Mr. Eachus's suggestions, but even if I did, they don't seem to be matters properly of concern to this siting council. Many of them would require changes in federal or state law to implement, and others would require WUTC action. I don't believe that this Council has the authority to regulate who may buy or sell electricity, or the price for which electricity may be sold.

Q. When I refer to the "need and consistency" requirements, do you know what I mean?

A. Yes. I assume you're referring to the requirements that EFSEC has imposed in the Satsop and Chehalis SCA's which require applicant to enter into contracts for 60% of the output of the facility for the first 5 years, and if any of those contracts concern

1 40% or more of the facility output, various requirements apply that relate to integrated
2 resource planning, the Northwest Power Plan or similar evaluations of available
3 resources. Some parties advocated those provisions in the first round of the hearings,
4 and in the Second Revised Application we've expressed a willingness to accept them.
5
6
7
8
9

10 **Q. In his prefiled testimony, Mr. Eachus was asked whether the offer to abide by**
11 **these need and consistency requirements guaranteed any direct benefits to**
12 **Washington citizens and he responded that "[n]o, it does not really guarantee**
13 **any benefits beyond what had been previously espoused and rejected by the**
14 **Council." How do you respond to his testimony?**
15
16
17
18
19

20 **A.** There are several things I would say in response.
21
22
23
24

25 First, I'm a little confused by Mr. Eachus' testimony. The Council has included these
26 requirements in the site certifications for the Satsop and Chehalis projects. OTED,
27 NWECA and the Counsel for the Environment (on behalf of whom Mr. Eachus now
28 testifies) advocated these requirements during the last round of hearings. In its
29 decision last February, the Council seemed to contrast SE2's project, which it
30 characterized as a "merchant plant," with the Satsop and Chehalis projects which were
31 originally permitted subject to these "need and consistency" requirements. We never
32 agreed with these requirements, but then again, we've disagreed with a lot of what's
33 been said in these proceedings. Rather than continue to resist something that the
34 Council appeared to place considerable value on and that several parties had
35 advocated, we tried to be pragmatic and solve an outstanding issue by volunteering to
36
37
38
39
40
41
42
43
44
45
46
47

1 accept these conditions. If no one thinks they're valuable, then we certainly don't
2 want them.
3

4
5
6 Second, I did not understand the purpose of these conditions – or of these proceedings
7 for that matter – to be to "guarantee a direct benefit" to Washington citizens.
8

9
10 Washington's energy siting statute plainly acknowledges that Washington citizens
11 benefit from the construction of energy facilities and the availability of abundant and
12 reliable power. Nothing in the statute requires a developer to trace each electron to an
13 end-user or to demonstrate that the project's benefits go only to Washington citizens.
14
15
16
17
18

19
20 **Q. In his prefiled testimony, Mr. Eachus makes two recommendations about**
21 **"conditions that can increase the likelihood of direct benefits to the ratepayers**
22 **and citizens of Washington." The first condition Mr. Eachus recommends is "a**
23 **'must offer' condition in which the plant is required to offer into the regional**
24 **spot market any output that is not already scheduled for use." What is your**
25 **response to this proposal?**
26
27
28
29
30
31

32 **A.** Mr. Eachus' recommendations may have value, but I believe they are completely
33 inappropriate in this venue. First, I believe it will always be in the economic interest
34 of SE2 to offer any otherwise unsubscribed power for sale. Assuming that the power
35 can be sold at a price that will at least recover our direct incremental cost of
36 generation, I believe SE2 would always attempt to sell such power. Second, I believe
37 that the commercial aspects of power sales in Washington State are regulated by the
38 Washington Utilities and Transportation Commission (WUTC) and the Federal
39 Energy Regulatory Commission (FERC), and probably by a number of other
40
41
42
43
44
45
46
47

1 governmental entities, regulatory authorities, laws and regulations. What we are
2 seeking here is a site certificate. For the Council to get involved in these regional
3 economic regulatory issues on an ad hoc, project-by-project basis seems inappropriate
4 at best and may even be counterproductive.
5
6
7
8
9

10 **Q. The second condition is "requiring the plant to make power available to any**
11 **control area in Washington State when that control area determines it has been**
12 **unable to acquire adequate supplies in the market [and] it will have an**
13 **inadequate supply to meet demand." What is your response to this proposal?**
14
15
16
17

18 **A.** Again, these recommendations may have value, but I believe they are completely
19 inappropriate in this venue. Interconnection to the electric grid includes obligations
20 on the part of the generator to the control area manager in which you are connected to
21 meet reliability standards and emergency procedures, including what happens under
22 emergency conditions such as a power shortage, a transmission outage and/or severe
23 weather conditions. In addition, I believe that the reliability aspects of power
24 generation in Washington State and the U.S. are regulated by the WUTC and the
25 FERC, and probably by a number of other governmental entities, regulatory
26 authorities, laws and regulations. What we are seeking here is a site certificate. For
27 the Council to get involved in these regional issues on an ad hoc, project-by-project
28 basis seems inappropriate.
29
30
31
32
33
34
35
36
37
38
39
40
41

42 **Q. In his prefiled testimony, Jim Lazar also had a recommendation about power**
43 **marketing. He suggested that SE2 be required to "commit a minimum of 60%**
44 **of the output to electric companies (as defined in RCW 80.28), to electric service**
45
46
47

1 providers who sell electricity at retail to end-users in the state such as in-state
2 industries which buy electricity in the wholesale market (such as aluminum
3 companies), or to Puget Sound Energy's open access customers or other
4 customers with retail access." What is your response to this recommendation?
5
6
7

8
9 A. Again, these recommendations may have value, but I believe they are completely
10 inappropriate in this venue. First, I do not believe Washington State law allows an
11 independent generator such as SE2 to make retail sales directly to in-state end-users.
12
13 Second, eligible in-state customers (such as Bonneville, Puget, and PUD's) have a
14 natural preference in purchasing power from SE2 due to the cost and losses associated
15 with transmission of electric power over long distances. These buyers will choose to
16 buy power from the generator that can best fit their needs, with cost being one of the
17 primary concerns. In addition, I believe that the commercial aspects of power sales in
18 Washington State and the U.S. are regulated by the WUTC and the FERC. What we
19 are seeking here is a site certificate. For the Council to get involved in these regional
20 issues on an ad hoc, project-by-project basis seems inappropriate. That being said,
21 SE2 would be willing to discuss, and has been discussing with OTED, a process that
22 could be established to provide a preference and first opportunity for qualified
23 Northwest "utilities" to bid on energy and capacity to be purchased under a cost-based
24 formula.
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40

41 Conclusion

42
43 Q. Is there anything you like to say to sum up your response to the testimony from
44 the intervenors' witnesses?
45
46
47

1 A. I think it is important to put this matter in context. The SE2 project is a proposal that
2
3 has, from its outset, sought to go further than just meeting standards. SE2 set a new
4
5 lower threshold for Best Available Control Technology that is already benefiting the
6
7 environment and citizens in the Northwest in terms of the standards that must be met,
8
9 and are being met, by other projects in the region. Since its initial application in
10
11 January of 1999, SE2 has twice revised its proposal to respond to concerns of
12
13 regulators and the public, making significant improvements in the project, reducing
14
15 impacts, and providing additional mitigation. In this most recent revision, SE2 has
16
17 done its best to respond to all of the concerns articulated by the Council in its Order
18
19 number 754.
20

21
22
23 There is no proposed project in the region cleaner and providing more mitigation than
24
25 SE2. There is certainly no operating plant in Washington State or British Columbia
26
27 that meets the standards of SE2. Clean, reliable power is needed in our region, and
28
29 SE2 represents responsible development from both an environmental and social
30
31 perspective.
32

33
34
35 **END OF TESTIMONY**
36
37
38
39
40
41
42
43
44
45
46
47